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EXAMINER

ODLAND, DAVID E

ART UNIT

PAPER NUMBER

2662

DATE MAILED: 07/02/2004

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Please find below and/or attached an Office communication concerning this application or proceeding.

**Office Action Summary**

Application No.

09/746,514

Applicant(s)

JAGANNATHARAO ET AL.

Examiner

David Odland

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☐ Responsive to communication(s) filed on \_\_\_\_.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-20 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-20 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date \_\_\_\_.
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_.

## DETAILED ACTION

### *Claim Objections*

1. Claim 4 is objected to because of the following informalities: the claim recites “deleting a slow link such the delay...” This is improper English grammar and it appears as though the term –that- should be inserted between the terms “such” and “the”.

Appropriate correction is required.

### *Claim Rejections - 35 USC § 112*

2. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter, which the applicant regards as his invention.

3. Claims 1-10 and 15-20 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claims 1,6 and 16 recite in the preambles a method or system for “inverse multiplexing”. This limitation is confusing since there are no steps or structures that perform this function recited in the body of the claim.

Claims 15 and 20 recite “...the slow link...” There is a lack of antecedent basis for this limitation in the claims.

Claims 2-5,7-10 and 17-20 are also rejected because they depend on rejected claims.

***Claim Rejections - 35 USC § 102***

4. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

5. Claims 1,2,6,7,16, and 17, as best understood, are rejected under 35 U.S.C. 102(b) as being anticipated by Nishihara (USPN 5,764,637), hereafter referred to as Nishihara.

Referring to claims 1, 6 and 16, Nishihara discloses a method comprising receiving data on one or more data links (ATM cells are received over a link (see figure 3 and column 6 lines 27-41)), writing the data in a buffer for each data link (the cells are written into a buffer (see figure 3 and column 6 lines 27-41)) and reading the data from the buffer for each data link faster than the data is written into the buffer (cells are read from the buffer faster than they are written to the buffer (see figure 3 and column 6 lines 27-41)).

Referring to claims 2,7 and 17, Nishihara discloses the system discussed above. Furthermore, Nishihara discloses that receiving the data includes receiving an asynchronous transfer mode (ATM) data cell (the data received by the buffer is a stream of ATM cells (see figure 3 and column 6 lines 27-41)).

***Claim Rejections - 35 USC § 103***

6. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

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(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

7. Claims 3,8,11-13 and 18, as best understood, are rejected under 35 U.S.C. 103(a) as being unpatentable over Nishihara.

Referring to claims 11 and 12, Nishihara discloses a method comprising receiving data on one or more data links (ATM cells are received over a link (see figure 3 and column 6 lines 27-41)), writing the data in a buffer for each data link (the cells are written into a buffer (see figure 3 and column 6 lines 27-41)) and reading the data from the buffer for each data link faster than the data is written into the buffer (cells are read from the buffer faster than they are written to the buffer (see figure 3 and column 6 lines 27-41));

receiving the data includes receiving an asynchronous transfer mode (ATM) data cell (the data received by the buffer is a stream of ATM cells (see figure 3 and column 6 lines 27-41)). Nishihara does not disclose that the process is performed using a computer readable medium (i.e. software). However, it would have been obvious to one skilled in the art at the time of the invention to implement the Nishihara system in this manner because the developmental costs of a software implementation are less than that of a hardware based implementation. Furthermore, software is easier to upgrade than hardware.

Referring to claims 3,8,13 and 18, Nishihara discloses the system discussed above. Nishihara does not disclose that the data is received on one or more T1/E1 links. However, T1/E1 links are commonly used and standardized communications protocols. Therefore, using these type of links in the Nishihara system would enable the system to conform to an already

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existing standard, thereby making the system more reliable and lower development costs of the system since an entirely new protocol does not have to be created.

8. Claims 4,5,9,10,14,15,19 and 20, as best understood, are rejected under 35 U.S.C. 103(a) as being unpatentable over Nishihara in view of Lafe et al. (USPN 6,449,658), hereafter referred to as Lafe.

Referring to claims 4,5,9,10,14,15,19 and 20, Nishihara discloses the system discussed above. Nishihara does not disclose deleting a slow link and then adding a faster link to the system. However, Lafe discloses a networking system wherein a slow connection is replaced by a faster compressed link (see column 5 lines 17-27). It would have been obvious to one skilled in the art at the time of the invention to implement this feature into Nishihara because as Lafe points out in column 3 lines 55 and 56, doing so would allow the system to operate at a faster rate.

### *Conclusion*

9. The following prior art, which is made of record and not relied upon, is considered pertinent to applicant's disclosure:

- a. U.S. Patent Number 5,448,572 to Knox et al.
- b. U.S. Patent Number 6,549,522 to Flynn.
- c. U.S. Patent Number 6,411,701 to Stademann.

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Any inquiry concerning this communication or earlier communications from the examiner should be directed to David Odland whose telephone number is 703-305-3231. The examiner can normally be reached on Monday - Friday from 8am to 5pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Hassan Kizou, can be reached at (703) 305-4744. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

deo

June 28, 2004



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